

Guidelines for Cost Estimating Assumptions

General Information:

- 1) Project length and location
- 2) Work Type required (PES, ESA, SSS, BFI, WFI, CFI, HML, etc)
- 3) Number of structures
- 4) Provide assumptions regarding project staking
- 5) Provide assumptions regarding utility locate
- 6) State Deliverables
- 7) State Design Method (ASD/LRFD)
- 8) Mileage and travel time
 - a) If > 50 miles one way, provide roundtrip mileage and roundtrip travel time
 - b) Provide any incidental mileage with description
 - c) Traffic Control personnel see traffic control notes.
- 9) List all subcontractors and what they will be performing
 - a) Traffic control and plan
 - b) Pavement coring
 - c) Drilling
 - d) Surveying
 - e) Lab (specify if sub or self-performing)
 - f) Non-destructive testing
- 10) State if any project specific permits will be required
 - a) Railroad
 - b) USACE
 - c) US Forest Department
- 11) Special Conditions and Equipment
 - a) Explain in detail any traffic control restrictions that will affect the number of hours of drilling per day and # of days required for drilling
 - b) Explain in detail the need for a bulldozer or any other equipment needed for clearing and site access and provide project approach.
 - c) Explain in detail the need for any specialized equipment
- 12) Traffic Control
 - a) Per diem should be included in daily/nightly rate
 - b) Mileage should be included in MOT Mobilization.
 - c) Number of days for traffic control and indicate day or night shift.
 - d) List any restrictions regarding work hours of operation.
- 13) Other Direct Cost (ODC) Back-Up Documentation
 - a) Submit each Vender back-up as a separate file for each Phase of work (i.e. Pavement, SS, BFI, ESA, etc.)
 - b) File naming nomenclature: Vendor Name/Phase of work/PI#

- c) Each back-up must be full proposal with quantities and rates and total cost, presented on company letter head or email with company signature block and address, dated, signed, valid for 12 months and saved in PDF format.
 - d) When preparing initial Assumptions and scope for project, include ODC rates and quantities in OMAT cost estimate spreadsheet for each Phase of work and submit all required ODC back-up as stated above. No man-hours nor labor rates submitted during this portion of task order development.
- 14) Column B activity descriptions provided in each unshaded row **MUST NOT** be edited, altered, nor removed. Should your project require an activity or service not listed, you should use the blank row highlighted in yellow and keep it highlighted (add rows if necessary and highlight matching yellow). The reasoning and justification for added rows must be clearly stated in the Assumptions tab scope of work along with specifics of what is included and estimated in each additional row.

Bridge Foundation Investigations:

- 1) Provide information as stated under General Information of Assumption Guidelines
- 2) Properties of the Bridge
 - a) Length and Width
 - b) Number of Spans and Bents
 - c) Grade Separation or Stream Crossing
- 3) Expected Method of Drilling
 - a) Hollow Stem Auger
 - b) Mud Rotary
- 4) Borings
 - a) Number of borings per bent
 - b) Total number of borings
 - c) SPT drilling footage planned per boring
 - d) SPT drilling footage to be completed per day
 - e) Planned work hours of operation per shift, weekdays/weekends/both and state day or night shift work
 - f) Number of days to complete the drilling
 - g) Total SPT drilling footage
 - h) Hours of SPT/CPT drilling per day
 - i) Total number of SPT samples
 - j) Is Rock expected?
 - (i) Will the rock be cored?
 - (ii) Will the rock be tested?
 - (iii) Footage of rock coring per boring
 - (iv) Total rock coring footage
 - k) Length of Temporary Casing
 - l) How will borings be backfilled
 - (i) Cuttings
 - (ii) Grouted
- 5) Number of Shelby Tubes needed and for which bents?
- 6) Number of Corrosion samples needed
- 7) Number of days for Traffic Control (see General Information of Assumption Guidelines)
- 8) Number of temporary observation wells for a 24 hr ground water check
- 9) Number of Lab Tests
 - a) USCS
 - b) Natural Moisture Content
 - c) Organic Content
 - d) Corrosion
 - e) Triaxial Shear
 - f) Consolidation
 - i. Uniaxial Compression Test on rock cores

Soil Survey Summary:

- 1) Provide information as stated under General Information of Assumption Guidelines
- 2) Length of the Project (less Bridge lengths)
- 3) Length of project on New Alignment, if applicable.
- 4) Length of project along existing alignment: widening, bridge replacement, intersection improvement, etc.
- 5) Percentage of fills and cuts
- 6) Number of stations with deep cuts and their average depth
- 7) Number and average height of high fill stations
- 8) Number of sampling directions
- 9) Number and average height of Culverts
- 10) Number of stations with rock cuts and their average depth
- 11) Samples to be taken
 - a) Number of 810.2 samples
 - b) Number of Soil Support samples
 - c) Number of SPT samples
 - d) Number of Shelby Tube samples
 - e) Number of water samples (corrosion)
 - f) Number of moisture samples
- 12) Drilling
 - a) Expected method of Drilling
 - (i) Drill Auger
 - (ii) Hand Auger
 - (iii) Mud Rotary
 - b) Total number of borings
 - c) Drilling footage production per day
 - d) Planned work hours of operation per shift, weekdays/weekends/both and state day or night shift work
 - e) Number of days to complete the drilling
 - f) State how borings will be filled, cuttings and spoils or grouted
 - g) Traffic control (see General Assumption Guidelines), # of shifts (day/night)
 - h) Expected per diem for drill crew and consultant (field engineer)
- 13) Number of Lab Tests
 - a) 810.2
 - b) USCS
 - c) CBR/SSV
 - d) Natural Moisture Content
 - e) Organic Content
 - f) Corrosion
 - g) Triaxial Shear
 - h) Consolidation

Wall Foundation Investigations:

- 1) Provide information as stated under General Information of Assumption Guidelines
- 2) Wall description
 - a) Number of walls
 - b) Length of each wall and total length of walls
 - c) Maximum Height of each wall
 - d) Type of wall(s)
- 3) Expected Method of drilling
 - a) Auger
 - b) Mud Rotary
- 4) Borings
 - a) Total number of borings
 - b) SPT drilling footage planned per boring
 - c) SPT drilling footage to be completed per day
 - d) Total SPT drilling footage
 - (i) Planned work hours of operation per shift
 - (ii) State day/night/weekend shift
 - e) Total number of SPT samples
 - f) Is Rock expected?
 - i) Will the rock be cored?
 - ii) Will the rock be tested?
 - iii) Number of holes to be cored
 - iv) Footage of rock coring per boring
 - v) Total rock coring footage
 - (1) Length of Temporary Casing
 - (2) How will borings be backfilled
 - (a) Cuttings
 - (b) Grouted
 - g) Number of Shelby Tubes planned per wall/boring
 - h) Number of Corrosion samples needed
 - i) Number of days to complete drilling
- 5) Number of days for Traffic Control (see General Information of Assumption Guidelines),
- 6) Number of days for per diem for Per Diem for drill crew and consultant (field engineer)
- 7) Will erosion control be needed?
 - a) How many linear feet
 - b) Will clearing be needed, if yes, describe
 - c) What type of site restoration will be included?
- 8) Number of Lab Tests
 - a) USCS
 - b) Natural Moisture Content
 - c) Organic Content
 - d) Corrosion

- e) Triaxial Shear
- f) Consolidation
- g) Uniaxial Compression Test on rock cores

Phase I Environmental Site Assessment:

- 1) Provide information as stated under General Information of Assumption Guidelines
- 2) Statement that the Phase I ESA will be performed in general accordance with ASTM E1527-13 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" and GDOT Guidelines.
- 3) Project length and location
- 4) Urban versus Rural project
- 5) # of hours for Records Review should include the following:
 - a) Review of federal, state and tribal environmental regulatory database
 - b) Review of Georgia's Underground Storage Tank Management Program for all sites with registered USTs
 - c) Review of Georgia's Hazardous Waste, Hazardous Site Response, Emergency Response and Solid Waste Programs for all sites with assigned ID number
 - d) Gather and Review of historical sources including aerial photographs, topographic maps, local city directories, fire insurance maps and property tax files.
- 6) Statement that the Phase I ESA will include conducting a site reconnaissance
- 7) # hours for Property owner contact
- 8) Interviews could include the following.
 - a) # of hours for Interviews with current and past owners
 - b) # of hours for Interviewing Tenants
 - c) # of hours for interviewing state and local government officials
- 9) Prepare one report of findings, which will generally follow the recommended formatting in Appendix X4 of ASTM E1527-13 (or most current version).
- 10) Any Project Specific items (Added Line Items) are to be detailed and justified in the Assumptions**

Phase II Environmental Site Assessment:

- 1) Provide information as stated under General Information of Assumption Guidelines
- 2) Statement that the Phase II Environmental Site Assessment will be conducted in general accordance with ASTM E1903-11 "Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process" and GDOT Guidelines.
- 3) The total number of sites to be investigated.
 - 2) *If a Phase I ESA has not yet been performed for the project, a Statement that the final number of sites to be investigated will be determined by the results of the Phase I ESA to accompany an initial assumption of a number of sites to be investigated.
 - 3) Length of project
 - 4) Utility Locate and gaining access
 - 5) # hours per Property owner contact
 - 6) Detailed assumptions of any proposed traffic control needs
 - 7) Drilling
 - a) Drilling method: Direct Push, Hollow stem auger, Etc.
 - b) Drilling footage per day (ex. 100' per day)
 - c) Hours of drilling per day (ex. Due to site access 6 hrs. of drilling per day)
 - d) State how borings will be filled, cuttings and spoils or grouted Total daily footage of boring
 - 8) Number of temporary monitoring wells
 - 9) Borings
 - a) Number of Borings per site
 - b) Total footage
 - c) Total number of samples
 - d) Number of days to complete drilling
 - e) Number of cores drilled through concrete
 - f) Number of pavement patching at grade
 - 10) Sampling & Testing
 - a) Tests to be performed for UST samples
 - b) Tests to be performed for HW Samples
 - c) Total number of samples to be tested
 - d) Description of Collection and Testing of Groundwater Samples
 - 11) A statement that proper decontamination procedures of equipment will be employed.
 - 12) Preparation of one Report of findings laboratory results and site maps reflecting well locations will be prepared.
 - 13) Any Project Specific items (Added Line Items) are to be detailed and justified in the Assumptions.
 - 14) Number of Days/Hours for the following:
 - a) Per Diem
 - b) Third Party Utility Locate
 - c) Decontamination of equipment

Pavement Evaluation Summary (PES) or Initial PES (IPES):

- 1) Provide information as stated under General Information of Assumption Guidelines
- 2) Concept (IPES) or Preliminary Design Phase (PES)
- 3) Project Length (IPES or PES)
- 4) Estimated Percent Retained Pavement (IPES or PES)
- 5) Days for visual site investigation (IPES or PES)
- 6) Days for visual distress survey (IPES or PES)
- 7) Coring Plan (PES Only)
 - a) # of core rigs and personnel per rig
 - b) # of cores per lane mile of main line for thickness (4" or 150mm id)
 - c) # of cores per lane mile for destructive testing (150mm id for Hamburg)
 - d) # of cores for distresses (4" or 150mm id)
 - e) # of cores per side road for thickness (4" or 150mm id)
 - f) # of subgrade samples
 - g) Labor time for patching
 - h) # of days of traffic control for coring
 - i) # of core production per day
- 8) Non-destructive testing (PES only)
 - a) GPR and list number of days to collect data
 - b) FWD and list number of days to collect data
 - c) Digital Distress Survey and list number of days to collect data
 - d) Other
- 9) Number of Lab Tests (PES only)
 - a) Hamburg
 - b) CBR (if SSS not required)
 - c) 810 Classification
 - d) Other
- 10) Traffic Control (see General Information of Assumption Guidelines)